SAMSUNG TECHWIN

SALES NETWORK

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SAMSUNG TECHWIN

High Resolution Compact Flat Dome Camera

User Manual

SCD-2010F

SAMSUNG

CAUTION
RISK OF ELECTRIC SHOCK.DO NOT OPEN

CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK) NO USER SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL.

THIS SYMBOL INDICATES THAT DANGEROUS VOLTAGE CONSISTING A RISK OF ELECTRIC SHOCK IS PRESENT WITHIN THIS UNIT.

THIS EXCLAMATION POINT SYMBOL IS INTENDED TO ALERT THE USER TO THE PRESENCE OF IMPORTANT OPERATING AND MAINTENANCE (SERVICING) INSTRUCTIONS IN THE LITERATURE ACCOMPANYING THE APPLIANCE.

WARNING

• TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.
• TO PREVENT INJURY, THIS APPARATUS MUST BE SECURELY ATTACHED TO THE FLOOR/WALL IN ACCORDANCE WITH THE INSTALLATION INSTRUCTIONS.
• IF THIS POWER SUPPLY IS USED AT 240V AC, A SUITABLE PLUG ADAPTER SHOULD BE USED.

WARNING

1. BE SURE TO USE ONLY THE STANDARD ADAPTER THAT IS SPECIFIED IN THE SPECIFICATION SHEET. USING ANY OTHER ADAPTER COULD CAUSE FIRE, ELECTRICAL SHOCK, OR DAMAGE TO THE PRODUCT.
2. INCORRECTLY CONNECTING THE POWER SUPPLY OR REPLACING BATTERY MAY CAUSE EXPLOSION, FIRE, ELECTRIC SHOCK, OR DAMAGE TO THE PRODUCT.
3. DO NOT CONNECT MULTIPLE CAMERAS TO A SINGLE ADAPTER. EXCEEDING THE CAPACITY MAY CAUSE ABNORMAL HEAT GENERATION OR FIRE.
4. SECURELY PLUG THE POWER CORD INTO THE POWER RECEPTACLE. INSECURE CONNECTION MAY CAUSE FIRE.
5. WHEN INSTALLING THE CAMERA, FASTEN IT SECURELY AND FIRMLY. THE FALL OF CAMERA MAY CAUSE PERSONAL INJURY.
6. DO NOT PLACE CONDUCTIVE OBJECTS (E.G. SCREWDRIVERS, COINS, METAL PARTS, ETC.) OR CONTAINERS FILLED WITH WATER ON TOP OF THE CAMERA. DOING SO MAY CAUSE PERSONAL INJURY DUE TO FIRE, ELECTRIC SHOCK, OR FALLING OBJECTS.
7. DO NOT INSTALL THE UNIT IN HUMID, DUSTY, OR SOOTY LOCATIONS. DOING SO MAY CAUSE FIRE OR ELECTRIC SHOCK.
8. IF ANY UNUSUAL SMELLS OR SMOKE COME FROM THE UNIT, STOP USING THE PRODUCT. IN SUCH CASE, IMMEDIATELY DISCONNECT THE POWER SOURCE AND CONTACT THE SERVICE CENTER. CONTINUED USE IN SUCH A CONDITION MAY CAUSE FIRE OR ELECTRIC SHOCK.
9. IF THIS PRODUCT FAILS TO OPERATE NORMALLY, CONTACT THE NEAREST SERVICE CENTER. NEVER DISASSEMBLE OR MODIFY THIS PRODUCT IN ANY WAY. (SAMSUNG IS NOT LIABLE FOR PROBLEMS CAUSED BY UNAUTHORIZED MODIFICATIONS OR ATTEMPTED REPAIR.)
10. WHEN CLEANING, DO NOT SPRAY WATER DIRECTLY ONTO PARTS OF THE PRODUCT. DOING SO MAY CAUSE FIRE OR ELECTRIC SHOCK.

CAUTION

1. DO NOT DROP OBJECTS ON THE PRODUCT OR APPLY STRONG BLOWS TO IT. KEEP AWAY FROM A LOCATION SUBJECT TO EXCESSIVE VIBRATION OR MAGNETIC INTERFERENCE.
2. DO NOT INSTALL IN A LOCATION SUBJECT TO HIGH TEMPERATURE (OVER 50°), LOW TEMPERATURE (BELOW -10°), OR HIGH HUMIDITY. DOING SO MAY CAUSE FIRE OR ELECTRIC SHOCK.
3. IF YOU WANT TO RELOCATE THE ALREADY INSTALLED PRODUCT, BE SURE TO TURN OFF THE POWER AND THEN MOVE OR REINSTALL IT.
4. REMOVE THE POWER PLUG FROM THE OUTLET WHEN THERE IS A LIGHTING STORM. NEGLECTING TO DO SO MAY CAUSE FIRE OR DAMAGE TO THE PRODUCT.
5. KEEP OUT OF DIRECT SUNLIGHT AND HEAT RADIATION SOURCES. IT MAY CAUSE FIRE.
6. INSTALL IT IN A PLACE WITH GOOD VENTILATION.
7. AVOID AIMING THE CAMERA DIRECTLY TOWARDS EXTREMELY BRIGHT OBJECTS SUCH AS SUN, AS THIS MAY DAMAGE THE CCD IMAGE SENSOR.
8. APPARATUS SHALL NOT BE EXPOSED TO DRIPPING OR SPLASHING AND NO OBJECTS FILLED WITH LIQUIDS, SUCH AS VASES, SHALL BE PLACED ON THE APPARATUS.
9. THE MAINS PLUG IS USED AS A DISCONNECT DEVICE AND SHALL STAY READILY OPERABLE AT ANY TIME.

FCC STATEMENT

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS :

1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND
2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

Caution

THIS EQUIPMENT HAS BEEN TESTED AND FOUND TO COMPLY WITH THE LIMITS FOR A CLASS A DIGITAL DEVICE, PURSUANT TO PART 15 OF FCC RULES. THESE LIMITS ARE DESIGNED TO PROVIDE REASONABLE PROTECTION AGAINST HARMFUL INTERFERENCE WHEN THE EQUIPMENT IS OPERATED IN A COMMERCIAL ENVIRONMENT.
THIS EQUIPMENT GENERATES, USES, AND CAN RADIATE RADIO FREQUENCY ENERGY AND, IF NOT INSTALLED AND USED IN ACCORDANCE WITH THE INSTRUCTION MANUAL, MAY CAUSE HARMFUL INTERFERENCE TO RADIO COMMUNICATIONS. OPERATION OF THIS EQUIPMENT IN A RESIDENTIAL AREA IS LIKELY TO CAUSE HARMFUL INTERFERENCE IN WHICH CASE THE USER WILL BE REQUIRED TO CORRECT THE INTERFERENCE AT HIS OWN EXPENSE.

IC COMPLIANCE NOTICE
THIS CLASS A DIGITAL APPARATUS MEETS ALL REQUIREMENTS OF THE CANADIAN INTERFERENCE.-CAUSING EQUIPMENT REGULATIONS OF ICES-003.

Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in the European Union and other European countries with separate collection systems)
This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.
Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.
Business users should contact their supplier and check the terms and conditions of the purchase contract.
This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

Correct disposal of batteries in this product

(Applicable in the European Union and other European countries with separate battery return systems.)
This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed of with other household waste at the end of their working life. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66. If batteries are not properly disposed of, these substances can cause harm to human health or the environment.
To protect natural resources and to promote material reuse, please separate batteries from other types of waste and recycle them through your local, free battery return system.

Important Safety Instructions

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Use only with cart, stand, tripod, bracket, or table specified by the manufacturer, or sold with the apparatus.
13. Unplug this apparatus when a card is used. Use caution when moving the cart/ apparatus combination to avoid injury from tip-over.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as powersupply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.

Features

High Resolution

By adopting a diagonal 6mm(1/3") 410,000(NTSC) pixel, 470,000(PAL) pixel SONY CCD, the camera produces clear picture quality with a horizontal resolution of 600 TV lines for color.

Excellent Sensitivity

The built-in high sensitivity COLOR CCD produces a clear image even in 0.04 Lux or lower illumination.

SSNR3 Function (Samsung Super Noise Reduction)

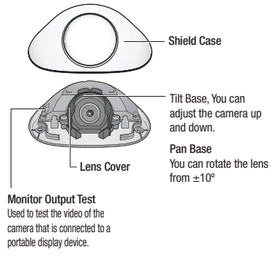
The high-performance W-V DSP chip effectively removes low-light gain noise and afterimage to provide clear images even in dark environments.

Pan and Tilt

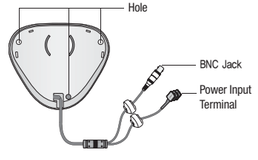
Pan and tilt are available after installing camera.

Component Names and Functions

Front


Shield Case
Tilt Base, You can adjust the camera up and down.
Pan Base
You can rotate the lens from ±10°
Lens Cover
Monitor Output Test
Used to test the video of the camera that is connected to a portable display device.

Bottom

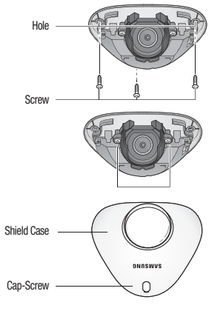


Accessories

Installation

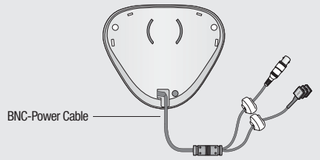
Installing Camera

1. Use the screws to secure the camera to the ceiling.
2. Loosen the screws slightly on both sides of the lens cover to adjust the lens in a desired angle. Then, tighten up the screws.
3. When done, close the shield case and remove the rubber cap on the rear. Then, tighten up the screw.



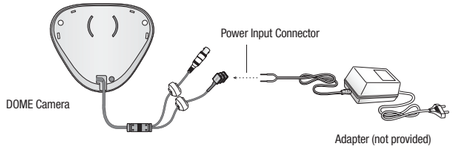
Notes

- To facilitate the installation work, arrange the BNC-POWER cable through the wiring hole.



Connecting to Power

- Connect the adapter to the power input connector as shown in the figure below.
  Use a DC 12V. (The Adapter is not provided with the Dome Camera.)



For DC Power Type

Resistance of copper wire [at 20℃(68℉)]

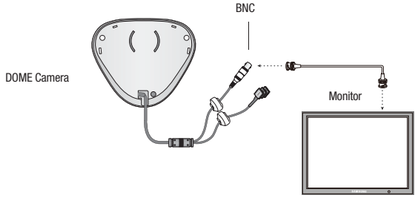
Copper wire size (AWG)	#24(0.22mm²)	#22(0.33mm²)	#20(0.52mm²)	#18(0.83mm²)
Resistance (Ω / m)	0.078	0.050	0.030	0.018
Voltage Drop (V/m)	0.028	0.018	0.011	0.006

- As the voltage drop according to the length of the cable in the above table, a camera may malfunction if there is an excessively long cable run.
  * Voltage for camera operation: DC 12V±10%
  * Voltage drops in the above table are variable according to types of cable manufacturer.

Connection to Monitor

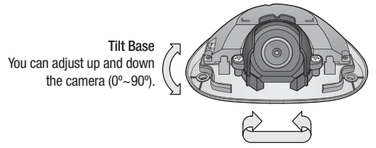
Connect the VIDEO-OUT jack to the VIDEO-IN jack of monitor.

- As a connecting method varies according to instruments, refer to the manual supplied with the instrument.
- Connect the cable after power is turned off.



Panning & Tilting Control

You can adjust the Panning and Tilting angle freely. (Panning angle: ±10º, Tilting angle: 0º~90º)



1) Adjustment Panning angle: After attaching the dome camera to a ceiling, adjust the panning angle for better monitoring area by rotating the Pan Base. The panning angle can be adjusted ±10º freely.
2) Adjustment Tilting angle: After attaching the dome camera to a ceiling, adjust the tilting angle for better monitoring area by rotating the Tilt Base. The tilting angle can be adjusted to 0º from 90º freely. (based the ceiling surface)

Notes

- If you want to adjust the lens angle, loosen the screws slightly on both sides of the lens cover to prevent possible damage to the camera before the adjustment.
- This dome camera is to be installed on the ceiling by factory default.
- If the camera is tilted more than 90°, captured screen may be obscured.

Camera Operation

Built-in functions of the SCD-2010F Camera include the following

Auto Functions	Setting	Descriptions
Electronic Shutter Speed	ESC	The shutter is controlled according to the brightness of screen by automatically.
WHITE BALANCE	ATW	It can be used within the color temperature range 1,700K ~ 11,000K.
BACKLIGHT	OFF	It helps view a desired area of picture at the backlight condition.
GAIN CONTROL	HIGH	The gain increases or decreases within the range of 6dB~34dB.
SSNR3 (Noise Reduction)	ON	There is sufficient reduction in noise levels without causing much ghost imaging.
SENS-UP	AUTO	It helps maintain a bright, clear screen image by automatically detecting changes in the level in low light levels without causing much ghost imaging.
SHARPNESS	ON	The outline of the video image becomes cleaner and more distinctive.
LENS SHADE	ON	It helps correct shading of Lens.

✻ If you need to control OSD menu, It needs control KEY or coaxial controller.

Troubleshooting

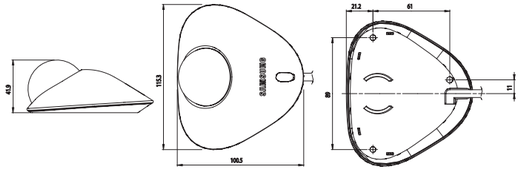
If you have trouble operating your camera, refer to the following.
If the guidelines do not enable you to solve the problem, contact an authorized technician.

■ **The image on the screen is dim.**
- Check if the lens are stained. If dirty, clean the lens with soft, clean cloth.
- The image is dimmer at night than daytime. If the focus is not right, adjust it at daytime.

■ **The contrast on the screen is too weak.**
- Adjust the contrast feature of the monitor.
- If the camera is exposed under too strong light, change the camera position.
- Adjust the lens BACK FOCUS again.

■ **The camera is not work properly, and the surface of the camera case is hot.**
- Check that you have connected the camera to a proper power (DC 12V±10%).

Dimension



Specification

	SCD-2010FN	SCD-2010FP
VIDEO		
Imaging Device	1/3" Super HAD CCD	
Total Pixels	811(H) x 508(V)	795(H) x 596(V)
Effective Pixels	768(H) x 494(V)	752(H) x 582(V)
Scanning System	2:1 Interlace	
Synchronization	Internal	
Frequency	H : 15.734KHz / V : 59.94Hz	H: 15.625KHz / V : 50.00Hz
Horizontal Resolution	Color : 600 TV lines	
Min. Illumination	Color : 0.04Lux (Sens-up, 2x)	
S / N (Y signal)	52dB (AGC off, Weight on)	
Video Output	CVBS : 1.0 Vp-p / 75Ω composite	
LENS		
Focal Length (Zoom Ratio)	3.0mm	
Max. Aperture Ratio	F2.0	
Angular Field of View	H : 89.5° / V : 67.2°	
Pan / Tilt		
Pan Range	±10°	
Tilt Range	0° ~ 90°	
OPERATIONAL		
On Screen Display	Multi-language Support by Coaxial Cable English, Japanese, Spanish, French, Portuguese, Taiwanese, Korean	Multi-language Support by Coaxial Cable English, French, German, Spanish, Italian, Chinese, Russian, Polish, Czech, Romanian, Serbian, Swedish, Danish, Turkish, Portuguese
Camera Title	Off / On (Displayed 15 characters)	
Day & Night	Auto (Electrical) / Color / B/W	
Backlight Compensation	BLC / HLC / OFF	

Specification

	SCD-2010FN	SCD-2010FP
Dynamic Range	SSDR (Off /On)	
Digital Noise Reduction	SSNR III (Off / On)	
Digital Image Stabilization	Off / On	
Motion Detection	Off / On (8 programmable zones)	
Privacy Masking	Off / On (12 programmable zones)	
Sens-up (Frame Integration)	2x ~ 512x	
Gain Control	Off / On	
White Balance	ATW / Outdoor / Indoor / Manual / AWC (1,700K° ~ 11,000K°)	
Electronic Shutter Speed	1/60 ~ 1/120,000 sec	1/50 ~ 1/120,000 sec
Digital Zoom	Off / On (1x ~ 16x)	
Flip / Mirror	Off / On	
Communication	Coaxial Control (SPC-300 compatible)	
Protocol	Pelco-C (Coaxitron)	
ENVIRONMENTAL		
Operating Temperature / Humidity	-10°C ~ +50°C (+14°F ~ +122°F) / Less than 90% RH	
ELECTRICAL		
Input Voltage	DC 12V±10%	
Power Consumption	1.8W	
MECHANICAL		
Color	Body : Ivory Dome Cover : Clear	
Dimension (W X H X D)	115.3 (W) x 41.9 (H) x 100.5 (D)	
Weight	140g	

※ The specification for this product may change without prior notice for product improvement.

Declaration of Conformity

Application of Council Directive(s)	2004 / 108 / EC
Manufacturer's Name	SAMSUNG TECHWIN CO., LTD
Manufacturer's Address	SAMSUNG TECHWIN CO., LTD 42, SUNGJU-DONG CHANGWON-CITY, KYUNGNAM, KOREA, 641-120
European Representative Name	
European Representative Address	
Equipment Type/Environment	MINI DOME CAMERA
Model Name	SCD-2010F
Beginning Serial NO.	C53C6V3Z200001X, C58I6V3Z200001X
Conformance to	EN 55022 : 2006 EN 50130-4 : 2003

We, the undersigned, hereby declare that the equipment specified above conforms to the above Directive(s).

Manufacturer	SAMSUNG TECHWIN CO., LTD	Legal Representative in Europe
Signature	BJ Gu	Signature
Full Name	BONJENG GU	Full Name
Position	QUALITY CONTROL MANAGER	Position
Place	CHANGWON, KOREA	Place